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GENERAL ASSEMBLY
Forty-ninth session
Items 14 and 64 (j) of the
preliminary list*
REPORT OF THE INTERNATIONAL
ATOMIC ENERGY AGENCY
GENERAL AND COMPLETE
DISARMAMENT: PROHIBITION OF
THE PRODUCTION OF FISSILE
MATERIAL FOR NUCLEAR WEAPONS
OR OTHER NUCLEAR EXPLOSIVE
DEVICES

SECURITY COUNCIL
Forty-ninth year

Note by the Secretary-General

The Secretary-General has the honour to transmit to the members of the General Assembly and of the Security Council the attached communication of 21 March 1994, which he has received from the Director General of the International Atomic Energy Agency (IAEA).

* A/49/50.

Annex

Letter dated 21 March 1994 from the Director-General of the International Atomic Energy Agency addressed to the Secretary-General

I refer to my letters of 16 September (S/26456, annex), 11 October (S/26456/Add.1, annex) and 3 December 1993 (S/26456/Add.2, annex) and 1 March 1994 (S/1994/254, annex). Pursuant to the Security Council's request in its resolution 825 (1993) these letters covered reports to the Council on the Agency's efforts to implement the safeguards agreement between IAEA and the Democratic People's Republic of Korea.

You will see from the appendix attached to my letter of 1 March 1994 that, at the close of its discussion about the Democratic People's Republic of Korea on 23 February, the Agency's Board of Governors shared its Chairman's summing up, which, inter alia:

> "Noted that a large number of Board members had asked the Director General immediately to convene a Board meeting in the absence of satisfactory developments in connection with the inspection."

The results of the latest safeguards inspection in the Democratic People's Republic of Korea were unsatisfactory in some important respects and were first reported at an informal briefing of the Board on 16 March, the day after the inspectors' return to Vienna.

A formal Board meeting took place today, 21 March. A resolution was adopted by 25 votes in favour, 1 against and 5 abstentions. The resolution is attached to the present letter and I should be grateful if you would bring it to the attention of the Security Council and of the General Assembly, under items 14 and 64 (j) of the preliminary list, pursuant to paragraph 6 of the resolution (see appendix I). Also attached, in pursuance of that paragraph, is the text of my most recent report to the Board of Governors (GOV/2687/Add.4) with the minor, editorial amendments necessary to adapt it for submission to the Council (see appendix II).

Should the Security Council consider it useful, I am of course ready to come to New York.

(Signed) Hans BLIX

Appendix I

Implementation of the Agreement between the Agency and the Democratic People's Republic of Korea for the Application of Safeguards in connection with the Treaty on the Non-Proliferation of Nuclear Weapons

The Board of Governors,

(a) Recalling the Board of Governors' resolutions GOV/2636 of 25 February 1993, GOV/2639 of 19 March 1993, GOV/2692 of 23 September 1993, the General Conference's resolution GC(XXXVII)/RES/624 of 1 October 1993, and in particular, GOV/2645 of 1 April 1993, which found the Democratic People's Republic of Korea to be in non-compliance with its safeguards agreement (INFCIRC/403) and referred the matter to the Security Council of the United Nations,

(b) Recalling also resolution 825 (1993) adopted by the Security Council of the United Nations on 11 May 1993, which, inter alia, requested the Director General to report on this matter to the Security Council,

(c) Noting the Director General's written and oral reports of 21 March 1994 and GOV/2687/Add.4, in which he stated that the Agency inspection team was not allowed to conduct indispensable and agreed inspection activities at the Democratic People's Republic of Korea's radiochemical laboratory, and that the Agency is unable to draw conclusions as to whether there has been either diversion of nuclear material or reprocessing at the radiochemical laboratory since February 1993.

(d) Noting further the Director General's reaffirmation that the secretariat remains available to perform inspection activities in the Democratic People's Republic of Korea in accordance with its procedures and agreements, and

(e) Taking account of the fact that the Democratic People's Republic of Korea is a party to the Non-Proliferation Treaty and is bound by its safeguards commitments;

1. Expresses grave concern that the Democratic People's Republic of Korea has failed to implement essential elements of resolutions of the Board and the General Conference concerning its non-compliance with its safeguards agreement (INFCIRC/403);

2. Finds that the Democratic People's Republic of Korea is in further non-compliance with its safeguards agreement, has aggravated this situation by not allowing the International Atomic Energy Agency inspectors to conduct indispensable inspection activities and that the Agency consequently remains unable to verify that there has been no diversion of nuclear material required to be safeguarded under the terms of the safeguards agreement to nuclear weapons or other nuclear explosive devices;

3. Strongly endorses and commends the patient and impartial efforts of the Director General and the secretariat to implement the safeguards agreement;

4. Regrets the stalemate in the Agency's efforts to resolve the Democratic People's Republic of Korea safeguards issue, as requested by the Security Council of the United Nations, due to the lack of cooperation of the Democratic People's Republic of Korea;

5. Calls upon the Democratic People's Republic of Korea immediately to allow the International Atomic Energy Agency to complete all requested inspection activities and to comply fully with its safeguards agreement;

6. Requests the Director General to transmit this resolution and his report to all members of the Agency and to the Security Council and the General Assembly of the United Nations in accordance with article XII.C. of the statute; and

7. Remains seized of the matter, and requests the Director General to report back to the Board any significant developments at its next meeting when it will consider, if necessary, further measures in accordance with article XII.C. of the statute.

Appendix II

Report by the Director-General of the International Atomic Energy Agency to the Security Council on the implementation of the Agreement between the Government of the Democratic People's Republic of Korea and the Agency for the Application of Safeguards in connection with the Treaty on the Non-Proliferation of Nuclear Weapons (INFCIRC/403)

1. In his last report to the Security Council on the implementation of the Agreement between the Government of the Democratic People's Republic of Korea and the International Atomic Energy Agency for the Application of Safeguards in connection with the Treaty on the Non-Proliferation of Nuclear Weapons (S/1994/254, annex) transmitted on 1 March 1994, the Director General, inter alia, explained that, at the beginning of January, the Democratic People's Republic of Korea authorities indicated to the Agency that they were ready to accept inspection of declared nuclear material and installations in the Democratic People's Republic of Korea required to provide "the continuity of safeguards". The Democratic People's Republic of Korea has sought to draw a distinction between "continuity of safeguards" and the acceptance of full application of its Safeguards Agreement with IAEA pursuant to the Treaty on the Non-Proliferation of Nuclear Weapons. The Democratic People's Republic of Korea has maintained that, having unilaterally suspended the "effectuation" of its withdrawal from the Non-Proliferation Treaty, it is in a unique position with regard to its Safeguards Agreement. The Agency continues to take a different view. This view, endorsed by the Agency's Board of Governors, its General Conference and the Security Council is that, when the Democratic People's Republic of Korea suspended the "effectuation" of its withdrawal from the Non-Proliferation Treaty, its obligations as a party to the Treaty continued. As a consequence, the Democratic People's Republic of Korea's Safeguards Agreement with the Agency remains fully in force.

2. In his report of 1 March 1994 to the Security Council, the Director General said that, although working-level discussions in Vienna had not brought agreement about the formal basis of the next inspection of declared nuclear material and installations in the Democratic People's Republic of Korea, a detailed list of inspection activities that the Agency had requested to be performed at the next inspection in accordance with its technical requirements had been established and accepted. During the course of the discussions, Agency representatives had explained in detail to the representatives of the Democratic People's Republic of Korea why each specific inspection measure was essential at that stage.

3. The report of the Director General noted that the inspection activities on which the Agency and the Democratic People's Republic of Korea were now agreed related only to the Democratic People's Republic of Korea's seven declared nuclear facilities and did not address either the need for access to additional information and locations or other activities required to verify the completeness of the Democratic People's Republic of Korea's initial inventory of nuclear material and facilities. On these issues, the Director General is mandated by the Board of Governors and by the Security Council to consult with

the Democratic People's Republic of Korea. The Agency had indicated and the Democratic People's Republic of Korea had accepted that the aim of the next inspection was the acquisition of sufficient data to enable the Agency to verify that there had been no diversion of nuclear material at the Democratic People's Republic of Korea's declared seven facilities since the earlier inspections. Both sides had also envisaged that the inspection team would take certain measures needed to allow future verification of non-diversion. As stated in the Director General's report, on 26 February, the Democratic People's Republic of Korea authorities issued visas for the inspectors, who left Vienna on Sunday 27 February and arrived in Pyongyang on Tuesday 1 March. The inspection activities took place between 3 and 14 March. The inspection team left Pyongyang on 15 March in accordance with the original schedule.

4. The actual inspection work in the Nyongbyon area, where six of the Democratic People's Republic of Korea's seven declared facilities are located, began on 3 March, the inspectors having spent the previous day transferring to Nyongbyon and having detailed discussions with operators on the scheduling of activities. Inspection activities in keeping with the agreement reached on 15 February proceeded without difficulty at all facilities except the radiochemical laboratory. The activities involved records examination, verification of nuclear material by non-destructive and destructive analysis (NDA and DA), reverification of design information and verification of the operational status of the facilities. An important development to be noted is that the inspectors were able to perform, for the first time, a physical inventory verification of the nuclear material at the fuel-rod fabrication plant. The results obtained from verification activities at these facilities are now being evaluated.

5. At the 5MWe experimental reactor, containment and surveillance devices (cameras, seals) were checked. Tapes which had long since run out in surveillance equipment were changed. New seals were applied. Data from the installed spent fuel-rod counter were collected for evaluation and comparison with records. Non-destructive measurements were performed on the irradiated fuel in the spent fuel storage. In order to maintain the knowledge now obtained, the Agency needs to perform the next inspection in about six weeks' time. During this inspection, the containment and surveillance measures will have to be checked. This is the case also for the radiochemical laboratory, where similar measures were implemented.

6. Difficulties at the radiochemical laboratory, otherwise known as the reprocessing plant, centred on inspection activities agreed upon in Vienna and designed to restore continuity of knowledge through taking samples and smears. They also had regard to safeguards activities involving the use of qualitative non-destructive measurements (gamma-mapping). The Agency needs to take samples and smears and perform gamma-mapping at particular locations within the radiochemical laboratory because such samples, smears and gamma-mapping can tell the inspectors whether operations have taken place in facilities where cameras have ceased to operate and seals have been broken. The Agency must also take account of the possibility that the loss of continuity in containment and surveillance could have allowed operators in the plant to bypass other installed containment measures. A statement by the operator that no reprocessing or other operations have taken place since the earlier inspection must be verified. The

particular locations where the containment and surveillance measures had been interrupted and where accordingly, samples, smears and gamma-mapping are needed are those where irradiated fuel is dissolved, the plutonium glove box area and the waste area. These locations and areas are critically important to the detection of any reprocessing that might have taken place.

7. In view of the obstacles encountered by the Agency inspection team at the radiochemical laboratory, it is necessary to recall the understanding reached between the Agency and the Democratic People's Republic of Korea concerning activities at that facility and the Democratic People's Republic of Korea's acceptance of those activities.

8. The Agency talking points of 25 January 1994 given to the representatives of the Democratic People's Republic of Korea's Permanent Mission contained the following understandings and requirements relevant to the radiochemical laboratory:

> "For the radiochemical laboratory of the Institute of Radiochemistry (KDF), the Agency understands that there is acceptance, that the activities associated with containment and surveillance devices (MIVS, seals) will include the examination of the facility containment so as to ascertain continuity of the effective use of such installed devices. The design information reverification will consist of a statement made by the operator, whether or not there have been any facility modifications or changes in operational status. This statement will be verified physically by the inspectors in-situ. The verification will include, for the process, waste storage and treatment areas i.e. buildings 1, 2, 3, 9, 10 and 14, qualitative NDA measurements (gamma-mapping) at a few selected points.
>
> "The Agency is concerned that the Democratic People's Republic of Korea has not yet accepted any activities associated with the re-establishment of continuity of knowledge in specific locations which are affected by the loss of surveillance (glove box area) and in the specific locations where seals were broken by the operator (buildings 1 and 9).
>
> "The Agency requirements for the re-establishment of the continuity of knowledge are a set of activities which include qualitative NDA (gamma-mapping), DA sampling, smear-taking and comparison of the existing pipework and vessels design with earlier photographs and drawings.
>
> "Without these activities the Agency will not be able to obtain continuity of knowledge on the operational status of this facility since the February 1993 inspection and could give no assurance of the non-diversion of nuclear material. Under such circumstances the inspection would not achieve its objectives."

9. The written list of inspection activities which the Democratic People's Republic of Korea gave to Agency representatives on 15 February included activities it was ready to accept at the radiochemical laboratory in the light, inter alia, of the Agency's talking points of 25 January.

10. Paragraph 5 of the Democratic People's Republic of Korea paper of 15 February covering design information reverification and paragraph 6 of the paper covering activities associated with the re-establishment of continuity of knowledge in the areas where containment and surveillance measures had failed, read as follows:

> "(5) The inspection activities associated with containment and surveillance devices (MIVS, seals) will include the examination of the facility containment to ascertain continuity of the effective use of such installed devices.
>
> The design information reverification will consist of a statement made by the operator on any facility modifications taken place or changes in operational status. This statement is possible to be verified physically by the inspectors in situ. The verification will include buildings 1, 2, 3, 9, 10 and 14. Qualitative NDA measurements (gamma-mapping) at a few selected points are also included.
>
> "(6) The activities associated with the re-establishment of continuity of knowledge in the locations which are affected by a loss of surveillance (glove box area) and in the specific locations where seals were broken by the operator (buildings 1 and 9), in particular, qualitative NDA (gamma-mapping), DA sampling, smear-taking are permitted to provide continuity of safeguards."

11. During the inspection which took place in the Democratic People's Republic of Korea from 3 to 14 March, Agency inspectors asked to carry out only those activities to which the Democratic People's Republic of Korea had agreed in Vienna. Moreover, with regard to the activities at the radiochemical laboratory, the inspection team agreed to replace some liquid sampling which presented technical problems for the Democratic People's Republic of Korea with smear-sampling; provided that it fulfilled the agreed purpose of the inspection.

12. In the plutonium glove box area, the Agency inspectors asked the operator for smear samples as agreed in Vienna by the Democratic People's Republic of Korea (see para. 10 above). Although in this case no technical difficulty existed, the operator refused to provide such samples stating that "smear-sampling in the area is related to the so-called inconsistencies which the Agency has alleged have occurred. This is therefore, a subject to be discussed in the negotiations for resolving the alleged inconsistencies". This argument was clearly irrelevant in the face of the 15 February agreement, which made no reference to the question of inconsistencies. Instead of the smear samples covered by the agreement, the operator offered only liquid samples from the area. The Agency cannot consider such samples as an alternative to smears. Smears provide a "finger print" of the cumulative history of plant operation and it is practically impossible to falsify them through the cleaning and decontamination of the area. The same cannot be said of liquid samples in this case.

13. As for gamma-mapping in the filter area (building 3), the Democratic People's Republic of Korea operators would allow such activity to be performed only in the places where it was confirmed by both parties that measurements had

previously been taken. However, paragraph 5 of the Democratic People's Republic of Korea list of accepted activities quoted above offers no ground for such objection but, reflecting the language in the Agency's talking points of 25 January (see para. 8 above) refers to gamma-mapping "at a few selected points". The restrictions imposed on sampling and gamma-mapping amounted to new conditions which, if they had been advanced in discussions in Vienna, would have blocked agreement on the inspection.

14. In discussion and in correspondence to the Democratic People's Republic of Korea even during the course of inspection, the Agency made clear to the Democratic People's Republic of Korea that, if the objectives of the inspection were to be achieved, it was indispensable that the Agency perform all the activities which, in its communication of 15 February to the Agency, the Democratic People's Republic of Korea had accepted. It can only be concluded that on some points central to the Agency's ability to detect any diversion of nuclear material, including plutonium, the Democratic People's Republic of Korea side permitted itself to disregard commitments made in Vienna.

15. Owing to the restrictions imposed on inspection activities, the Agency inspection team was unable to implement the Democratic People's Republic of Korea/International Atomic Energy Agency agreement of 15 February as regards the radiochemical laboratory. As explained in the Agency's talking points of 25 January, the Agency cannot, in the absence of the required activities, obtain continuity of knowledge of the operational status of this facility since the February 1993 inspection. Accordingly, the Agency is unable to draw conclusions as to whether there has been either diversion of nuclear material or reprocessing or other operations at the radiochemical laboratory since February 1993.